EFFECTS OF CONSTRUCTION AND STAGED FILLING OF RESERVOIR ON THE ENVIRONMENT AND ECOLOGY

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Date: 10 January 1976
Type II Progress Report for Period
1 October 1975 - 30 December 1975

Prepared for:

Goddard Space Flight Center (GSFC)
Greenbelt, Maryland 20771

TYPE II PROGRESS REPORT
For the Period 1 October 1975 - 31 December 1975

TITLE: Effects of Construction and Staged Filling of Reservoirs on the Environment and Ecology, Investigation Number 23500

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GSFC IF NUMBER: 350

A PROBLEMS: None

B ACCOMPLISHMENTS: Familiarization exercises were conducted with the optical processing system. Two techniques were used: 1) producing color composites from seperate ERTS bands of the same scene, and 2) producing temporal difference images of the same band of scenes taken at different times. The pin registration system worked satisfactorily for additive copying. However, the scenes currently available are not suitable for producing temporal color composites since seasonal variations exist. Acquisition of additional imagery taken during the same season as available pre-project imagery will solve this problem.

The use of diazo processed images was also examined for the above two techniques. Using cyan for band 7 and red for band 5 produces a color composite of good quality. At least six distinct tonal classes can be visually determined. This same procedure using the same band of scenes from different times should produce good temporal color composites. Further analysis will be undertaken to determine if the diazo color composites contain as much detail and clarity as color composites produced by additive copying. An example of a diazo color composite is attached as Inclosure 1.

Sufficient ground truth exists for proceding with the initial phases of the project. Ground truth documentation is contained in 'Enviornmental Assessment Clarence Cannon Dam and Reservoir' and the Clarence Cannon Dam and Reservoir Draft Environmental Statement. The first document was submitted in November 1975 under cover of a letter. An example of ground truth displayed as computer output is attached as Inclosure 2.

The next step is to select scenes suitable for interpertation of pre-project conditions and use these scenes to produce enhanced enlargements of the test area. Then pre-project interpertations can begin.

C. SIGNIFICANT RESULTS: None

D. PUBLICATIONS: None

E. RECOMMENDATIONS: None

F. FUNDS EXPENDED: $4,500.00

G. DATA USE:

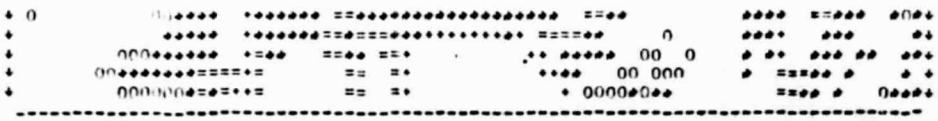
Value of Data Allowed : $2,004.00
Value of Data Ordered : 608.00
Value of Data Received: 608.00

H. AIRCRAFT DATA: None since last report.

GROUND TRUTH - FOREST TYPE DISTRIBUTION

ALL CLASSES DISPLAYED

In12



CLASS	SYMBOL	FREQUENCY	AREA(SQ MI)	AREA(P.C.)
1	••• ••• •••	18	.00	.8
2	=== === ===	244	.00	11.3
3	••• ••• •••	301	.00	13.9
4	000 000 000	463	.00	21.4
5	### ### ###	1141	.00	52.7
		2167	.00	